

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 97 (GEORGIA AVENUE) AND INTERNATIONAL DRIVE IN MONTGOMERY COUNTY, MARYLAND. MODIFICATIONS INCLUDE THE INSTALLATION OF VIDEO DETECTION CAMERAS, LED TRAFFIC SIGNAL HEADS, AND 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEADS AND AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS FOR THE EAST LEG OF INTERNATIONAL DRIVE. MD 97 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA THREE-PHASE, SEMI-TRAFFIC-ACTUATED MODE WITH THE MD 97 APPROACHES OPERATING EXCLUSIVELY AND THE INTERNATIONAL DRIVE APPROACH OPERATING EXCLUSIVELY. SOUTHBOUND MD 97 THROUGH TRAFFIC IS FREE FLOW. PROTECTED LEFT-TURN PHASING IS PROVIDED FOR SOUTHBOUND MD 97. INTERCONNECT IS PROVIDED ALONG MD 97 BETWEEN ROSSMOOR BOULEVARD TO THE SOUTH AND NORBECK ROAD TO THE NORTH. INTERSECTION LIGHTING IS PROVIDED ON THE WEST SIDE AND SOUTHEAST CORNER.

NEW AUDIBLE PUSHBUTTON ACTUATED PEDESTRIAN PHASES WILL BE PROVIDED ACROSS THE EAST LEG OF INTERNATIONAL DRIVE.

APS MESSAGE FOR CROSSING INTERNATIONAL DRIVE:

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS INTERNATIONAL AT GEORGIA, WAIT".
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTROLLER REQUIREMENTS

THE EXISTING NEMA SIZE 'S' BASE MOUNTED CABINET AND EIGHT-PHASE CONTROLLER AND ALL ASSOCIATED EQUIPMENT WILL CONTINUE TO BE USED. A 2-WIRE CENTRAL CONTROL UNIT WILL BE ADDED TO THE CABINET.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
900000	8	SF	SHEET ALUMINUM GROUND MOUNTED SIGN - 1 EACH M3-1 (24"x12") - 1 EACH M1-5 "97" (24"x24") - 1 EACH M6-1(R) (21"x15")
900000	2	SF	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN - 2 EACH R10-3(1) "INTERNATIONAL DRIVE" - (9"x15")

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

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MR. PAUL WILSON
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THE CONTACT PERSON FOR MCDPWT IS AS FOLLOWS:

MR. KAMUL HAMUD
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION
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EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
100000	1	EA	MAINTENANCE OF TRAFFIC (PER INTERSECTION)
201032	4	CY	CLASS 2 EXCAVATION
203030	1	CY	TEST PIT EXCAVATION
585619	20	LF	5 INCH YELLOW PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585621	200	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	100	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585700	150	LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
600000	36	LF	TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
600000	42	LF	TYPE A CURB ANY HEIGHT OR DEPTH
655105	350	SF	5 INCH CONCRETE SIDEWALK
655120	15	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
704345	50	SY	PLACING FURNISHED TOPSOIL 4 INCH DEPTH
708220	25	SY	TURFORASS SOD ESTABLISHMENT
800000	1	EA	2-WIRE APS CENTRAL CONTROL UNIT
800000	2	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
800000	2	EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	2	EA	IP-BASED VIDEO DETECTION CAMERA & ANY LENGTH LEAD-IN CABLE
800000	2	EA	5 FOOT OR 10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLINGS, FOUNDATION & GROUND ROD
800000	1	EA	REMOVE & DISPOSE OF EXISTING SIGNAL EQUIPMENT (PER SIGNALIZED INTERSECTION LOCATION)
800000	75	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED OR SLOTTED
800000	50	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
800000	10	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
800000	1	EA	THIRD PARTY CONCRETE TESTING (PER INTERSECTION)
800000	17	LF	WOOD SIGN SUPPORTS UP TO 4 INCH X 6 INCH
802501	150	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
811001	2	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
860274	6	EA	12 INCH OPTICALLY PROGRAMMED SIGNAL HEAD SECTION
860284	3	EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	700	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	600	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	550	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:

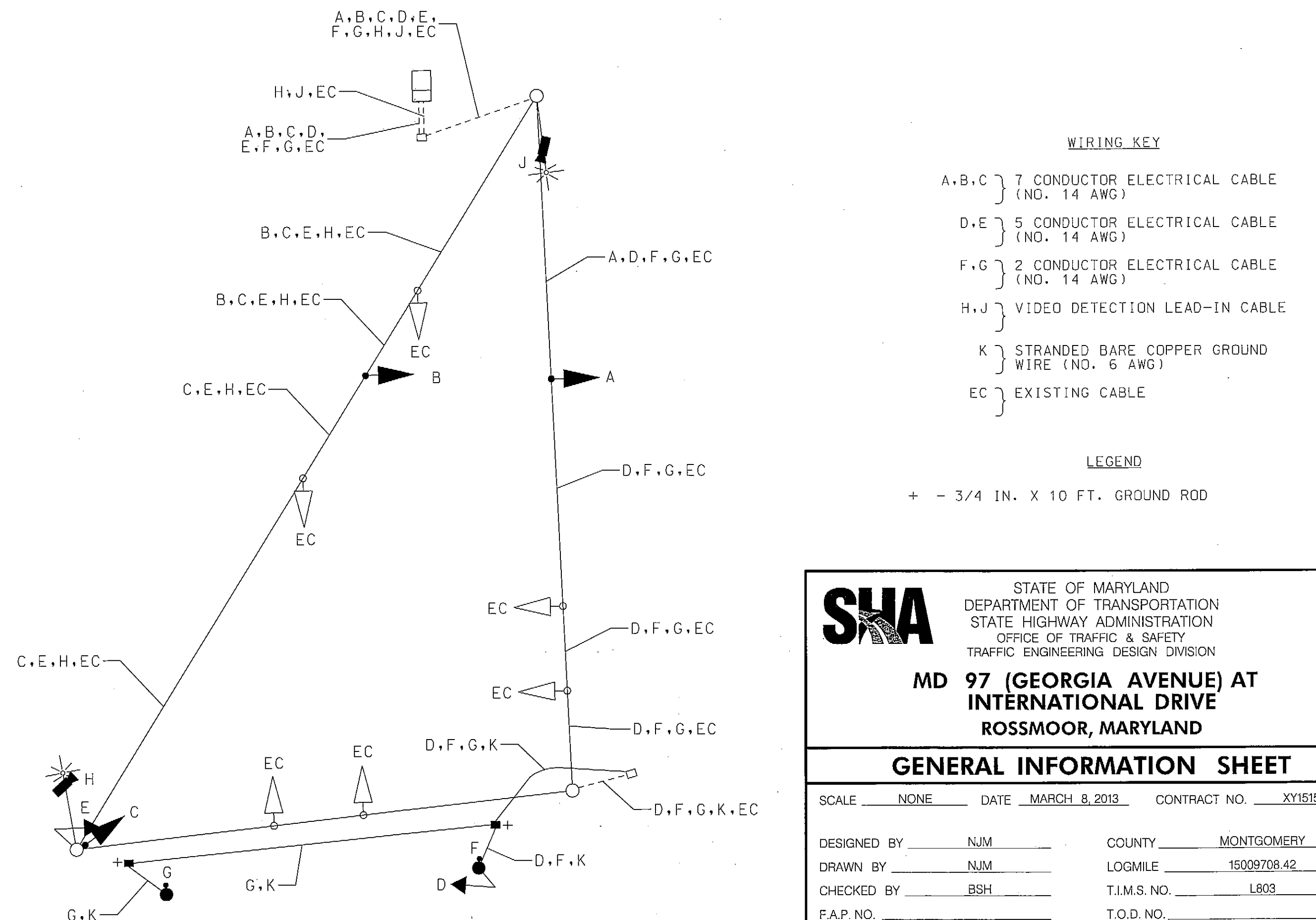
NONE.

PHASE CHART

1	2	3	4	5	6	7	8	9	10	11
R	R	R	R	R	R	R	R	R	R	R
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
G	G	G	G	G	G	G	G	G	G	G

PHASE 1	R	R	←G	←G	G	G	G	R	R	DW	DW
1 CHANGE	R	R	←Y	←Y	Y	Y	Y	R	R	DW	DW
PHASE 2	G	G	←R	←R	R	R	R	R	R	W	W
PED CLEARANCE	G	G	←R	←R	R	R	R	R	R	FL/DWFL/DW	FL/DWFL/DW
2 CHANGE	Y	Y	←R	←R	R	R	R	R	R	DW	DW
PHASE 4	R	R	←R	←R	R	R	R	G	G	DW	DW
4 CHANGE	R	R	←R	←R	R	R	R	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

WIRING DIAGRAM



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